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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,165	02/12/2007	Marcus Davidsson	P18112-US2	3743

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EXAMINER	
WOO, ANDREW M	

ART UNIT	PAPER NUMBER
2441	

NOTIFICATION DATE	DELIVERY MODE
03/04/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/595,165	DAVIDSSON, MARCUS	
	Examiner	Art Unit	
	ANDREW WOO	2441	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-17 and 19-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-17 and 19-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to the amendment that was filed on 12/07/2010. Claims 1, 3-17, and 19-21 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3-17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutta et al. (WO 01/91382, hereinafter Hutta) in view of Cain (20040028018).

5. Regarding claim 1, **Hutta** discloses a method in a communication apparatus for maintaining an established connection between said communication apparatus and a network node of a serving communication network *(**Hutta** discloses that the selection of the support node may be made depending on the type of the connection established and/or requested, or on the type of the user equipment)* **(Hutta, page 10, lines 25-29)**, comprising the steps of:

receiving an acceptance message from said network node in response to a request message relating to a first procedure transmitted to said network node *(**Hutta** discloses that the first network element may send a message of request containing the identifier (e.g. RAI) to another network element such as a DNS (Domain Name System) server in order to receive, as a response, a list of possible second network elements serving the routing area indicated by the RAI)* **(Hutta, page 5, lines 6-11)**;

determining whether any request relating to a second procedure is pending *(**Hutta** discloses that the follow on request shall be set by the MS if there is pending uplink traffic (signaling or user data))* **(Hutta, page 26, lines 17-18)**; and,

transmitting to said network node, if any request is pending when said acceptance message is received, a maintaining request for maintaining said connection *(**Hutta** discloses that the first network element uses the area identifier and/or the CN identifier to request the list-transmitting network element such as a DNS server to send*

a list of second network elements assigned to the transmitted identifier) **(Hutta, page 6, lines 25-36; page 7, lines 1-5)**.

Hutta does not explicitly disclose wherein the step of transmitting said maintaining request is executed if the pending request is received after the request relating to the first procedure is transmitted and before said acceptance message is received.

In analogous art, **Cain** teaches wherein the step of transmitting said maintaining request is executed if the pending request is received after the request relating to the first procedure is transmitted and before said acceptance message is received *(**Cain** discloses that the initiating mobile node transmits a request for time slots to the receiving mobile node, which transmits a reply to the initiating mobile node; the initiating mobile node transmits a confirmation to the receiving mobile node, and the receiving mobile node transmits the reply again if the confirmation is not received; the receiving mobile node may transmit an acknowledgment to the initiating mobile node, and the initiating mobile node transmits the confirmation again if the acknowledgment is not received)* **(Cain, para. 61)**.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to take the teachings of **Cain** related to maintaining a connection when there are transactions pending and to combine with **Hutta** in order to lower the processing time within the system *(**Cain** discloses that the initiating mobile node transmits a request for time slots to the receiving mobile node, which transmits a reply to the initiating mobile node; the initiating mobile node transmits a confirmation to the*

receiving mobile node, and the receiving mobile node transmits the reply again if the confirmation is not received; the receiving mobile node may transmit an acknowledgment to the initiating mobile node, and the initiating mobile node transmits the confirmation again if the acknowledgment is not received) **(Cain, para. 61)**.

6. Regarding claim 3, **Hutta** and **Cain** discloses the method according to claim 1, wherein the maintaining request is incorporated into a response message, which is transmitted in response to receiving said acceptance message *(**Cain** discloses that the initiating mobile node transmits a request for time slots to the receiving mobile node, which transmits a reply to the initiating mobile node; the initiating mobile node transmits a confirmation to the receiving mobile node, and the receiving mobile node transmits the reply again if the confirmation is not received; the receiving mobile node may transmit an acknowledgment to the initiating mobile node, and the initiating mobile node transmits the confirmation again if the acknowledgment is not received)* **(Cain, para. 61)**.

7. Regarding claim 4, **Hutta** and **Cain** discloses the method according to claim 3, wherein the response message is an acknowledgement message *(**Cain** discloses that the initiating mobile node transmits a request for time slots to the receiving mobile node, which transmits a reply to the initiating mobile node; the initiating mobile node transmits a confirmation to the receiving mobile node, and the receiving mobile node transmits the reply again if the confirmation is not received; the receiving mobile node may transmit*

an acknowledgment to the initiating mobile node, and the initiating mobile node transmits the confirmation again if the acknowledgment is not received) **(Cain, para. 61)**.

8. Regarding claim 5, **Hutta** and **Cain** discloses the method according to claim 1, further comprising the step of maintaining said established connection until the connection is no longer in use *(**Hutta** discloses that the routing area has to be completely shut-down and is at least temporarily no longer usable for providing connections)* **(Hutta, page 2, lines 20-26)**.

9. Regarding claim 6, **Hutta** and **Cain** discloses the method according to claim 1, wherein the established connection is a packet switched or a circuit switched signaling connection *(**Hutta** discloses that the network can be of circuit-switched or packet-switched)* **(Hutta, page 1, lines 3-10)**.

10. Regarding claim 7, **Hutta** and **Cain** discloses the method according to claim 1, wherein the method is comprised in a mobility management protocol of a wireless communication interface of the electronic communication apparatus, and wherein a mobility management unit handles the signaling to the network node *(**Hutta** discloses that to ensure backward compatibility, the new information element is optional information element transmitted in both MM and RRC signaling (if an explicit information element is used for both protocols))* **(Hutta, page 16, lines 20-32)**.

11. Regarding claim 8, **Hutta** and **Cain** discloses the method according to claim 1, wherein the first and second procedures are mobility management procedures *(**Hutta** discloses that the selection of one of the available second network elements covering a certain routing area may be performed in dependence on information coming from other network element such as user equipment, for instance a mobile station)* **(Hutta, page 7, lines 26-36; page 8, lines 1-5)**.

12. Regarding claim 9, **Hutta** and **Cain** discloses the method according to claim 1, wherein the maintaining request is a Follow-On Request (FOR) *(**Hutta** discloses that the RRC connection is established, if not done already; the MS sends a routing area update request message (i.e. follow-on-request, etc.); and the follow on request shall be set by the MS if there is pending uplink traffic (signaling or user data))* **(Hutta, page 26, lines 12-20)**.

13. Regarding claim 17, **Hutta** discloses a control device for a communication apparatus for maintaining an established connection to a communication network, the control device being adapted to issue a request to maintain said connection *(**Hutta** discloses that the network element can be of a user equipment)* **(Hutta, page 4, lines 18-28)**, comprising:

receiver means arranged to receive an acceptance message in response to transmitting a request relating to a first procedure *(**Hutta** discloses that the first network*

element may send a message of request containing the identifier (e.g. RAI) to another network element such as a DNS (Domain Name System) server in order to receive, as a response, a list of possible second network elements serving the routing area indicated by the RAI) **(Hutta, page 5, lines 6-11)**; and,

issuing means arranged to issue, if any request relating to a second procedure is pending when said acceptance message is received, a maintaining request for maintaining said connection *(**Hutta** discloses that the first network element uses the area identifier and/or the CN identifier to request the list-transmitting network element such as a DNS server to send a list of second network elements assigned to the transmitted identifier; and the follow on request shall be set by the MS if there is pending uplink traffic (signaling or user data))* **(Hutta, page 6, lines 25-36; page 7, lines 1-5; page 26, lines 17-18)**.

Hutta does not explicitly disclose wherein said issuing means is arranged to issue said maintaining request if the pending request is received after the request relating to the first procedure is transmitted and before said acceptance message is received.

In analogous art, **Cain** teaches wherein said issuing means is arranged to issue said maintaining request if the pending request is received after the request relating to the first procedure is transmitted and before said acceptance message is received *(**Cain** discloses that the initiating mobile node transmits a request for time slots to the receiving mobile node, which transmits a reply to the initiating mobile node; the initiating mobile node transmits a confirmation to the receiving mobile node, and the receiving*

mobile node transmits the reply again if the confirmation is not received; the receiving mobile node may transmit an acknowledgment to the initiating mobile node, and the initiating mobile node transmits the confirmation again if the acknowledgment is not received) **(Cain, para. 61)**.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to take the teachings of **Cain** related to maintaining a connection when there are transactions pending and to combine with **Hutta** in order to lower the processing time within the system *(**Cain** discloses that the initiating mobile node transmits a request for time slots to the receiving mobile node, which transmits a reply to the initiating mobile node; the initiating mobile node transmits a confirmation to the receiving mobile node, and the receiving mobile node transmits the reply again if the confirmation is not received; the receiving mobile node may transmit an acknowledgment to the initiating mobile node, and the initiating mobile node transmits the confirmation again if the acknowledgment is not received)* **(Cain, para. 61)**.

14. Regarding claim 19, **Hutta** and **Cain** discloses the control device according to claim 17, wherein said issuing means is arranged to incorporate the maintaining request into a response message, and arranged to issue said response message in response to receiving said acceptance message *(**Hutta** discloses that the first network element may send a message of request containing the identifier (e.g. RAI) to another network element such as a DNS (Domain Name System) server in order to receive, as a response, a list of possible second network elements serving the routing area indicated*

by the RAI; and as a part of the response of the DNS, there is a transmitted a list of IP addresses and Canonical names (CNAME), as in fig. 5) **(Hutta, page 5, lines 6-11; page 19, lines 1-5)**.

15. Regarding claim 20, **Hutta** and **Cain** discloses the control device according to claim 19, wherein the response message is an acknowledgement message *(**Hutta** discloses that the RA update is an Inter-SGSN routing area update, the new SGSN sends an SGSN Context Acknowledge message to the old SGSN)* **(Hutta, page 28, lines 4-9)**.

16. Regarding claim 21, **Hutta** and **Cain** discloses the control device according to claim 17, comprising a memory for storing a mobility management protocol of a wireless communication interface, according to which the requests are transmitted, and the acceptance message is received *(**Hutta** discloses that to ensure backward compatibility, the new information element is optional information element transmitted in both MM and RRC signaling (if an explicit information element is used for both protocols); and having retrieved the available SGSNs from the memory)* **(Hutta, page 16, lines 20-32; page 23, lines 19-34)**.

Response to Arguments

17. Applicant's arguments with respect to claims 1, 3-17, and 19-21 have been considered but are moot in view of the new ground(s) of rejection.

(A) In response to applicant's argument in claim 1 and 17, that the cited reference fails to teach that condition form transmitting the maintaining request, which applicants submit is not taught in the references of record [pg. 6-8], and the examiner respectfully disagrees. **Cain** discloses transmitting the maintaining request as claimed (See claim 1 and 17 supra). Thus, applicant's remarks are moot in view of the new ground(s) of rejection.

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Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW WOO whose telephone number is (571)270-7521. The examiner can normally be reached on Monday - Friday, 8am-5:30pm, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571)272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. W./
Examiner, Art Unit 2441

/Wing F. Chan/
Supervisory Patent Examiner, Art Unit 2441

02/24/2011